

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/082483 A1

(51) International Patent Classification⁷: **B01D 15/08**,
C07K 16/00

[FR/SE]; Amersham Biosciences AB, Björkgatan 30,
S-751 84 Uppsala (SE).

(21) International Application Number:
PCT/SE2005/000293

(74) Agent: **AMERSHAM BIOSCIENCES**; Patents Department,
Björkgatan 30, S-751 84 Uppsala (SE).

(22) International Filing Date: 25 February 2005 (25.02.2005)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0400501-3 27 February 2004 (27.02.2004) SE
0402558-1 21 October 2004 (21.10.2004) SE

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **AMERSHAM BIOSCIENCES AB** [SE/SE]; Björkgatan 30, S-751 84 Uppsala (SE).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **GRÖNBERG, Anna** [SE/SE]; Björkgatan 30, S-751 84 Uppsala (SE). **JOHANSSON, Bo-Lennart** [SE/SE]; Amersham Biosciences AB, Björkgatan 30, S-751 84 Uppsala (SE). **JOHANSSON, Hans, J.** [SE/SE]; Amersham Biosciences AB, Björkgatan 30, S-751 84 Uppsala (SE). **MALOISEL, Jean-Luc** [FR/SE]; Amersham Biosciences AB, Björkgatan 30, S-751 84 Uppsala (SE). **THEVENIN, Nicolas**

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A PROCESS FOR THE PURIFICATION OF ANTIBODIES

(57) Abstract: The present invention relates to a process for the purification of antibodies from one or more impurities in a liquid, which process comprises contacting said liquid with a first chromatography resin comprised of a support to which multi-modal ligands have been immobilised to adsorb the antibodies to the resin, wherein each multi-modal ligand comprises at least one cation-exchanging group and at least one aromatic or heteroaromatic ring system; adding an eluent to release the antibodies from the resin; and contacting the eluate so obtained with a second chromatography resin. In one embodiment, the ring-forming atoms of the aromatic or heteroaromatic entity are selected from the group consisting of C, S and O, and the cation exchanging group is a weak cation exchanger.



WO 2005/082483 A1